

Appln. No. 10/011,011  
Docket No. 14XZ00088/GEM-0202

## REMARKS / ARGUMENTS

### Status of Claims

Claims 2-57 and 59-63 are pending in the application. Claims 2-57 and 59-63 stand rejected. Applicant has amended Claims 57, 59, and 60, and has cancelled Claims 56 and 61-63, leaving Claims 2-55, 57, and 59-60 for consideration upon entry of the present Amendment.

Applicant respectfully submits that the rejections under 35 U.S.C. §101, 35 U.S.C. §112, second paragraph, and 35 U.S.C. §102(b) have been traversed, that no new matter has been entered, and that the application is in condition for allowance.

### Claim Objections

Claims 60-63 are objected to under 37 CFR 1.75(c) as being of improper form for failing to further limit the subject matter of a previous claim.

Applicant has amended Claim 60 and cancelled Claims 61-63 to overcome these objections.

Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw these objections, which Applicant considers to be overcome.

### Rejections Under 35 U.S.C. §101

Applicant notes that in the Advisory Action paper dated January 16, 2007, this rejection has been overcome. However, in the interest of completeness, Applicant provides the following.

Claims 60-63 stand rejected under 35 U.S.C. §101, for being directed to non-statutory subject matter. The Examiner comments that the article of manufacture, program storage device, and computer program product claims are dependent upon a method, represent a mixing of statutory classes, and as such the claims are non-statutory.

Applicant has amended Claim 60 and cancelled Claims 61-63 to overcome these rejections.

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Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw these rejections, which Applicant considers to be overcome.

**Rejections Under 35 U.S.C. §112, Second Paragraph**

Applicant notes that in the Advisory Action paper dated January 16, 2007, this rejection has been overcome. However, in the interest of completeness, Applicant provides the following.

Claims 2-56 and 59-63 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter that Applicant regards as the invention.

The Examiner comments that "Claim 59 recites determining a model or parametric characteristics. However, the dependent claims elaborate only on the model disclosed. This would render the claims vague and indefinite." [paper 20060928, p.3]

Applicant respectfully disagrees that the claimed invention is vague and indefinite, and submits that one skilled in the art would appreciate that the claimed model, as disclosed in the application as originally filed, takes into consideration at least one parameter (see for example paragraph [0029] discussing a parametric model), and therefore may be viewed as a model comprising parametric characteristics. As such, dependent claims elaborating only on the model would be recognized by one skilled in the art as also being applicable to elaboration of a claim to the parametric characteristics.

However, in an effort to further this application to allowance, Applicant has, without intention of narrowing the scope of the claims, amended Claim 59 to remove the term "or parametric characteristics".

This amendment has not been entered to overcome the prior art and therefore, no presumption should attach that either the claim has been narrowed over that earlier presented, or that subject matter or equivalents thereof to which the Applicant is entitled has been surrendered.

In view of the foregoing, Applicant respectfully submits that the claimed subject matter is described in such a manner that reasonably conveys to one skilled in the relevant

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art that the inventors, at the time the application was filed, had possession of the claimed invention. Accordingly, Applicant respectfully requests the Examiner to reconsider and withdraw this rejection, which Applicant considers to be traversed.

**Rejections Under 35 U.S.C. §102(b)**

Claims 2-57 and 59-63 stand rejected under 35 U.S.C. §102(b) as being anticipated by Haridas et al, Medical Device and Diagnostic Industry Magazine "Predictive Analysis at the Forefront of Medical Product Development," hereinafter referred to as Haridas.

Applicant traverses this rejection for the following reasons.

Applicant respectfully submits that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. V. Union Oil Co. of California*, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). Moreover, "[t]he identical invention must be shown in as complete detail as is contained in the \*\*\* claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). Furthermore, the single source must disclose all of the claimed elements "arranged as in the claim." *Structural Rubber Prods. Co. v. Park Rubber Co.*, 749 F.2d 707, 716, 223 U.S.P.Q. 1264, 1271 (Fed. Cir. 1984). Missing elements may not be supplied by the knowledge of one skilled in the art or the disclosure of another reference. *Titanium Metals Corp. v. Banner*, 778 F.2d 775, 780, 227 U.S.P.Q. 773, 777 (Fed. Cir. 1985).

**Regarding Independent Claims 57, 59, and 60**

Applicant has cancelled Claim 56, and has amended Claims 57, 59, and 60 to include subject matter previously claimed in Claim 56 and to further describe the subject matter considered to be patentable.

In Applicant's response paper dated December 18, 2006, Applicant made arguments to distinguish between a model prosthesis and an actual prosthesis, and to distinguish between a simulation and an interventional operation.

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In the Advisory Action paper dated January 16, 2007, the Examiner commented that the claims do not recite "real time" or an "actual prosthesis", that the claims recite a simulation, and that a broad reading of the claims results in the alleged anticipation by Haridas.

As set forth above in the listing of claims, Applicant has amended the independent claims to now include limitations directed to a method for simulating *in the course of an interventional operation*. More specifically, Applicant has amended the independent claims to now include limitations directed to:

"...interventionally deploying the prosthesis in the blood vessel at the lesion; using supplementary imaging, determining during intervention a composition of the lesion;

in response to the interventionally deployed prosthesis and the determined lesion composition during intervention, taking into account the instantaneous state of the endovascular prosthesis and shape of the lesion in order to further simulate and visualize in three dimensions a future state of the endovascular prosthesis and of the lesion as a function of possible actions indicated by an operator;

thereby enabling in the course of the interventional operation, to take the present stage of operational parameters into account so that a simulated final state of the operation can be visualized."

No new matter has been added as antecedent support can be found in the application as filed, such as at Paragraphs [0004], [0017], [0031] and [0037], for example.

Dependent claims inherit all of the limitations of the respective parent claim.

Throughout the instant amendment, Applicant consistently distinguishes between the prosthesis, meaning an actual prosthesis, and the model of the prosthesis, meaning a model of the actual prosthesis. As such, Applicant submits that one skilled in the art would recognize and appreciate that the claimed invention unambiguously includes limitations directed to both an actual prosthesis and a model of the actual prosthesis. Additionally, Applicant submits that one skilled in the art would recognize and appreciate

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that the claimed invention is directed to a method for simulating *in the course of an interventional operation*, and not merely to a method for simulating.

In comparing Haridas with the claimed invention as amended, Applicant submits that Haridas falls wholly short of anticipating each and every element of the claimed invention arranged as claimed, as Applicant finds Haridas to be strictly limited to predictive analysis and to be absent employment of the predictive analysis in the course of an interventional operation, including each and every element of the amended claims.

Applicant's remarks in the response paper dated December 18, 2006, pages 15-16, remain applicable in this response paper, however, to avoid being overly repetitive Applicant herein incorporates those remarks by reference rather than by verbatim insertion.

In view of the amendment and foregoing remarks, Applicant submits that Haridas does not disclose each and every element of the claimed invention arranged as claimed and therefore cannot be anticipatory. Accordingly, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §102(b) have been traversed, and requests that the Examiner reconsider and withdraw these rejections.

In light of the foregoing remarks and amendments, Applicant respectfully submits that the Examiner's rejections under 35 U.S.C. §101, 35 U.S.C. §112, second paragraph, and 35 U.S.C. §102(b), have been traversed, and that the application is now in condition for allowance. Such action is therefore respectfully requested.

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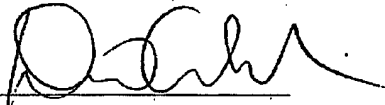
If a communication with Applicant's Attorneys would assist in advancing this case to allowance, the Examiner is cordially invited to contact the undersigned so that any such issues may be promptly resolved.

The Commissioner is hereby authorized to charge any additional fees that may be required for this amendment, or credit any overpayment, to Deposit Account No. 50-2513. In the event that an extension of time is required, or may be required in addition to that requested in a petition for extension of time, the Commissioner is requested to grant a petition for that extension of time that is required to make this response timely and is hereby authorized to charge any fee for such an extension of time or credit any overpayment for an extension of time to the above-identified Deposit Account.

Respectfully submitted,

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